

Defining the Technological Research University of the 21st Century

State of the Institute Address

G. Wayne Clough, President, October, 2000

(TITLE SLIDE)

Good afternoon. It is my pleasure to present the year 2000 State of the Institute Address. In my remarks I will provide you with a summary of an impressive year of accomplishments and share with you ideas about what needs to be done if we are to capture the great potential that exists for this institution.

Someone coined the term “Harvard-ization” to describe the goal of many American colleges and universities. If this is your goal, you pick out the best university you know, and do your best to imitate it. Over the course of the 20th century, Georgia Tech was guilty of its share of “Harvard-ization.” We added the requisite graduate programs and developed a solid research agenda, and in the process we advanced from a very good regional school to one with a national presence. Yet the path we trod through the 20th century was largely blazed before us by the likes of MIT and Harvard.

However, in the past decade we have begun to develop an agenda of our own making that has others looking to us for future directions. Indeed over the course of the last six years, few if any universities have won three National Science Foundation Centers of Excellence; been awarded the nation’s top teaching recognition, the Hesburgh Award; and been designated a site for a European Union Center. These are impressive signs of progress, but if we are to truly establish our place as one of the world’s best, we have to help define the future, not emulate the past.

In my State of the Institute Address last year, I expressed my confidence that as the 20th century drew to a close, Georgia Tech was poised on the threshold of a new era. We are now entering the 21st century, and we want to make it our century – a time when our collective effort lifts Georgia Tech from the ranks of the good, solid schools, and establishes us as a center and source of innovation. This is a challenge worthy of us, and it will take effort, time, persistence, and careful investment to meet it.

Over the past year, the faculty, staff, students, and alumni of this great institution have moved us forward into position to strive for the goal of the new century. This year, as in the past, there are many accomplishments to celebrate at Georgia Tech, and I am not able to do justice to them in a single address. To help appreciate what goes on at a dynamic place like this, we have collected some of the highlights in a brochure, which we invite you to take with you.

(SLIDE: FRESHMEN DATA)

As you can see, the quality of the students who choose Georgia Tech continues to rise, and it comes on the heels of an increase in applications of 25 percent over a brief two-year period. When I returned to campus in 1994, I was impressed with the quality of the students Georgia Tech was attracting then, and they just keep improving. We even have more sets of twins in this year's freshman class, up to eight from six last year.

(GTREP SLIDE)

We are seeing increasing demand for our services not only on our Atlanta campus, but also for the Georgia Tech Regional Engineering Program, known to us as GTREP. One year into its existence, GTREP already has nearly 200 students on track to earn Tech engineering degrees without leaving southeast Georgia. A recent \$10 million donation of land will allow us to develop a first-class campus in Savannah. This program owes its success to the hard work of Dr. David Frost, our GTREP Director; our Dean of Engineering, Dr. Jean-Lou Chameau; and our university partners, Georgia Southern University in Statesboro and Savannah State and Armstrong Atlantic State Universities. GTREP already has nine Georgia Tech faculty based in southeast Georgia, and we plan to hire seven more this coming year.

(SLIDE: ATHLETICS)

On the playing fields our student athletes excelled. This past year three of our outstanding student athletes stood among the best in the nation or even the world in their specialties, while four were named Academic All Americans. Even more significant, 38 percent of Georgia Tech's student athletes were on the dean's list last spring.

We are also proud of Ralph Friedgen, the architect of the nation's top offense, who was recognized as the most outstanding assistant football coach in the nation. Finally we salute the performance of former student Angelo Taylor, who won two gold medals in the Olympics in Australia in the 400 meter hurdles and the 1600 meter relay, maintaining Georgia Tech's hold on these two golds, which Tech alums Derrick Akins and Derek Mills won in the Atlanta Olympics.

(SLIDE: HAL IRVIN)

Georgia Tech believes that investing in people is the best way to enable our administrative staff to realize their aspirations to be as outstanding as our students and faculty. Hal Irvin and his staff have helped us reshape and expand our campus training programs with relevant courses – from strengthening management skills, to learning new computer software, to polishing English language skills. Last year the participants in campus training courses quadrupled, while the number of last-minute cancellations

plummeted. That was no aberration – this year we are running significantly ahead of last year.

(SLIDE: FACULTY PHOTOS)

Our faculty continue to do their part to make Georgia Tech a stellar institution. Last year, ten young faculty earned CAREER Awards from the National Science Foundation, and Tech faculty have now earned a total of 46 CAREER awards, the third highest in the nation. Two more Tech professors were elected to the National Academy of Engineering, bringing our total there to 19, including Dr. Richard Lipton, who brought his expertise in the emerging new field of bioinformatics to Tech.

(SLIDE: VIRTUAL)

It was a great year for Georgia Tech's research labs as well, as we continued to garner national and international attention for a variety of initiatives. Research expenditures reached an all-time high of about \$274 million, marking the sixth consecutive year of growth, and 175 invention disclosures were filed, another all-time high.

(SLIDE: ENDANGERED)

What you are seeing here on the slides are some of the year's top attention-getting research projects. They illustrate the growing interdisciplinary nature of our research initiatives – combining science, engineering, and technology to shape the world of the future, both for humans and for the living creatures that share the natural environment with us.

(SLIDE: NANO)

A Georgia Tech research project under the direction of physics Professor Uzi Landman was featured on the cover of *Science* magazine, and that is indicative of the way Georgia Tech has been positioning itself to be a leader in nanoscience and nanotechnology, which are receiving increasing attention and funding at the federal level.

(SLIDE: 5th ST)

We all know that a first-class research university requires first-class facilities, and we continue to make progress in that direction. Our Campus Master Plan calls for us to work in partnership with our surrounding neighborhoods to create a complete urban community that offers all of the ingredients for quality of life.

That is our goal as we plan to take a historic step across the Interstate barrier and become an active participant in Midtown. Georgia Tech's Fifth Street Project is an ambitious \$150 million undertaking that will develop the south side of Fifth Street between the Downtown Connector and the Biltmore Hotel. Two-thirds of the cost will

be covered by the revenues the facilities generate. The remaining third will come from private donations. We are working hard and have already raised \$15 million from generous donors who share the possibilities of this vision with us.

This complex will house many of our programs that are most directly connected to the Atlanta community, placing them close to those they are designed to serve. This location is especially important for the DuPree College of Management as it develops closer relationships with Atlanta's high-tech community, and for the continuing and executive education programs that serve Tech alumni and Georgia's businesses and industries.

At the same we are building the Fifth Street Project on the south side of the street, it has now been confirmed that the new Yamacraw Broadband Design Center will be going up on the north side. Yamacraw is the state's strategic initiative to make Georgia a world leader in the design of broadband systems, devices, and chips. Georgia Tech is the lead university in the Yamacraw initiative, and it has allowed us to add 22 faculty to the College of Computing and the School of Electrical and Computer Engineering.

(SLIDE: BUILDING LIST)

The campus envisioned in our Master Plan provides an appropriate setting for one of the world's pre-eminent technological research universities. In addition to the Fifth Street Project, the Master Plan outlines many improvements all across campus, shaping our facilities for a new level of excellence in the new century. Our complex for bioengineering and biosciences, environmental technology and molecular sciences recently drew praise in the magazine *Nature* for its innovative approach to creating a place for leading-edge interdisciplinary research and learning.

(SLIDE: CAMPAIGN)

Of course, we could not attain the accomplishments I have described without ample resources. Higher level achievements require a higher level of resources, and the Georgia Tech Foundation and the Campaign for Georgia Tech have been great benefactors for our aspirations. Today our Foundation has become a central force funding our drive for excellence and the Board of the Foundation and its officers are owed a debt of gratitude.

The campaign began almost five years ago with a goal of \$300 million. That number has been raised several times along the way – most recently to \$600 million just last spring. The question now is not whether we will meet this goal by the end of the campaign on December 31st, but rather by how much we will exceed it. The campaign has been a broad effort, with campus-wide participation, and activities taking place in dozens of

cities in the U.S. and well as at least three foreign countries. Campaign gifts have made a significant difference in our facilities and for our faculty and students, and we are looking forward to celebrating its successful conclusion with follow-up events next year here on campus and in a number of cities around the nation.

But the end of the campaign does not mean that we fold our tents and go back to where we were before it started. Even as we prepare to celebrate its success, we are making plans to sustain the higher level we achieved during the campaign, to revisit our priorities for the future, and to ensure that our stewardship efforts cultivate the many new friends we have made.

(SLIDE: RANKINGS)

All of the accomplishments I have cited have attracted public recognition. In September's *U.S. News & World Report* undergraduate rankings, Georgia Tech jumped from 10th place to 8th among public national universities, and the DuPree College of Management moved into the top tier of *Business Week's* annual ranking of business schools. You have to take these rankings with a grain of salt, but the trend for Georgia Tech is clearly positive and it helps establish our image as an institution on the fast track.

Under the category "when you are hot you are hot," we would be remiss if I failed to mention one of Georgia Tech's most interesting number one national rankings of the year.

(SLIDE: BUZZ)

On our campus we have known all along that Buzz is the best mascot in the land, but now the secret is out, and the nation has confirmed it. Buzz is number one!

(TRANSITION SLIDE)

These are just a few of the accomplishments of the past year that give us cause to celebrate. But our goal is to be more than simply the result of the past. If we are to be the institution that defines the technological university of the 21st century we need to take the initiative to address the issues that lie between us and our goal. This task goes beyond the basic need to continue growing the distinction of our faculty, recruiting the best undergraduate and graduate students, and providing the facilities for the future. So I want to use the remainder of my remarks to focus on challenges we must recognize and meet if we are to reach our goals for this institution in the 21st century. These relate to undergraduate education, diversity, faculty entrepreneurship, and communicating our expectations and plans with those we wish to impact and those who impact us.

(SLIDE: UNDERGRAD)

Our undergraduate student population stands at 10,744 and represents 73 percent of our total enrollment. To a large extent the early development of Georgia Tech was based on undergraduate education, but in the past three decades, the Institute has seen its fortunes rise because of the growth of its research enterprise. During this time our graduate programs expanded at a headlong pace, improved in quality, and opened exciting new opportunities for advanced study. At the same time our undergraduate student body was also growing, both in quantity and quality, and today it is arguably one of the best qualified at any public institution in the nation. Yet, although our graduate students express wide satisfaction with their educational experience, our undergraduates do not share this opinion. Their dissatisfaction is tangibly reflected in the information reported in the *U.S. News & World Report* rankings, where Georgia Tech is cited overall as among the nation's best, but we are solidly in the second tier at 71st place for undergraduate student retention and graduation rates. Fully one-third of the undergraduates who matriculate at Georgia Tech do not graduate despite having entered with the qualifications to do so. This consequence sets us apart from those institutions with which we strive to compete in research and reputation. For example, MIT and Stanford graduate 92 percent of their undergraduate students. Among leading public universities, the University of Virginia graduates 91 percent and the University of Michigan 82 percent.

(SLIDE: STUDENT COLLAGE)

To better understand our circumstances, we participated in the National Survey of Student Engagement last year. While some of the results were encouraging, our undergraduate students told us they had too little contact with our faculty outside the classroom. Importantly our scores for undergraduate student engagement in research were well below the national average. The survey was official confirmation of what the typical undergraduate student at Georgia Tech will tell you if you ask – that research is perceived as one of the reasons faculty are not available to them. In other words, as we have developed our research prowess, we have not made the necessary effort to bring our undergraduates into this critical part of our life as an institution.

An additional telling point for me came recently in a conversation with several undergraduate students about the effect of our capital campaign on them and Georgia Tech. When told that 40-plus chairs had been created for faculty, the students said fine, but they had no expectation of seeing any of these distinguished faculty in the undergraduate classroom or as an advisor for an undergraduate research experience. While many of our senior faculty do indeed participate in undergraduate education, the perception of our undergraduates indicates that a problem exists.

The data on retention and lack of engagement of our undergraduate students in research and with senior faculty suggest that as an institution we are not yet a research university in the best sense of the term.

(SLIDE: ME HANDBOOK)

While many of our undergraduate students express concerns about their educational experience, on the other side of the coin we hear that many faculty feel our bright students are not living up to their qualifications. Woody Allen once said that 80 percent of success is showing up, and when it comes to attending class, that is true. Students will get out of class what they put into it, and it is reasonable for faculty to expect them to show up with completed assignments in hand and prepared to participate in class. If students neglect their responsibilities to the educational process by not showing up for class or not participating when they're present, this also diminishes the educational experience.

We seem to have the kind of problem that moved the warden in the movie *Cool Hand Luke* to say to the inmates, "What we have here is a failure to communicate." I believe it is time to rebuild the bridges between our faculty and our students that have been neglected too long.

(SLIDE: QUOTE)

Vice Provost for Undergraduate Studies Bob McMath has been working on these issues for more than a year, talking with students, faculty, and academic and administrative leaders, gathering information on who is trying what remedies. He found that many faculty, students, and administrators share these concerns about the quality of education, and there is agreement that it is incumbent on us to do something about it. To this end, I am announcing today an initiative to enhance the undergraduate teaching and learning environment, which is designed to provide our colleges and schools and their faculty and staff with incentives and resources to do the job from their end. My administration will also work with our student leaders to help our student body understand that we need them to do their part if we are to succeed in this important endeavor.

(SLIDE: SGA GROUP)

I am pleased to say that the ideas for this initiative reflect a consensus from deliberations in various forums like our Faculty Executive Board and Faculty Senate, with our Deans and Chairs, and most recently through the recommendations of the Joint Commission on Enhancing Undergraduate Learning – a group of 12 faculty, 12 staff and 12 students brought together by our Student Government who have issued a very thoughtful proposal that deserves our attention.

(SLIDE: LIST) The new initiative will consist of four parts:

1. (*KEY STROKE*) Funding to support faculty in their efforts to engage undergraduates in research.
2. (*KEY STROKE*) Developing a charge for Colleges and Schools to provide recognition for efforts undertaken in support of our undergraduate agenda and creating an oversight committee for the instruction and content in the core curriculum.
3. (*KEY STROKE*) Funding for new graduate and undergraduate TA positions to support the undergraduate teaching and learning mission, and to expand TA training by our Center for Enhancement of Teaching and Learning (CETL).
4. (*KEY STROKE*) Documenting, reinforcing, and sharing best practices in undergraduate advising, teaching, and research.

(SLIDE: FOUNDATION)

Let's begin by appreciating the foundation we have on which to build. The majority of our faculty have a genuine concern for our undergraduates. For example, the faculty of the academic units teaching the core curriculum, principally those in the Ivan Allen College and the College of Sciences, worked hard to develop an innovative, technology-based curriculum when we required all students to have computers. And just last year the Hesburgh Award recognized these efforts and those of our Center for the Improvement of Teaching and Learning as examples for others to emulate.

(SLIDE: ARCHITECTURE)

Our faculty also applied extensive effort to the recent conversion from quarters to semesters, which was accomplished with remarkable success and lack of disruption for our students. I want to personally thank and congratulate everyone at Georgia Tech for this successful transition.

The benefit of such efforts was clear in the National Survey of Student Engagement. Compared to other research universities, Tech students use more technology. They are given a higher level of open-ended problems and essays on exams. We have a stronger focus on synthesizing and organizing ideas, and applying theories and concepts to practical problems or new situations.

(SLIDE: STUDENT ARCHWAY)

Even given these positive developments, it is apparent that issues remain and that we have to collectively find a way to address them. The common ground lies in our belief in the concept of the university and the framework underlying it.

We begin with the need for all of us – students, faculty and staff – to understand that a superlative undergraduate experience is a significant and integral part of a world-class research university. And we all share the responsibility for creating that environment at Georgia Tech. We should appreciate that research and undergraduate education are not mutually exclusive components that compete with each other, but can, and ought to be, integrated to enrich each other. Research is a learning process, and our goal is to be a community of scholars that joins together in discovering and sharing knowledge.

(SLIDE: KUDZU KID)

We already have the raw materials to create an exceptional undergraduate experience. Our undergraduates are coming to us today with research skills and interests, honed through sophisticated award-winning science fair projects. We need to make sure these outstanding young people get their fair share of the dynamic energy generated by our world-class research enterprise.

(SLIDE: ECKERT)

We also have committed faculty who are already making a difference. Based on a recent survey, more than 100 professors are already involving undergraduates in research, including some of our most renowned scholars. One of these is Dr. Chuck Eckert, member of the National Academy of Engineering and holder of a chaired faculty position, who regularly engages a half-dozen undergraduates his research.

(SLIDE: AEROSPACE)

There are other good examples for us to draw on such as aerospace engineering faculty whose student research teams were chosen by NASA to carry out experiments they designed to be conducted under reduced gravity. GTRI researcher Rob Michelson initiated in the International Aerial Robotics Competition, in which Georgia Tech student teams design, build and operate autonomous, intelligent flying machines.

(SLIDE: CORY KIDD)

The Broadband Institute involved undergraduates like Cory Kidd in planning and building Georgia Tech's Aware Home, where futuristic electronic control systems for the home are developed.

(SLIDE: GTRI KIDS)

GTRI regularly employs dozens of undergraduate co-op students in their research work, and in the College of Sciences recently undergraduate Matthew Bennett worked with a faculty team to recreate a 1665 physics experiment and explain an outcome that was misunderstood for hundreds of years.

(SLIDE: INITIATIVE #1)

These examples represent a good start, but they are too few and far between. So the first part of the undergraduate initiative is to expand the participation of undergraduates in research projects. I will create a fund of \$250,000 to support undergraduate research endeavors, and invite faculty to submit proposals for funding to create opportunities for undergraduates to participate in meaningful research activities.

(SLIDE: LAB)

The second part of the initiative is to connect our faculty more closely to our undergraduate classrooms and teaching labs. We want to celebrate the work of those who already take this responsibility seriously.

(SLIDE: CHAMEIDES/McMATH)

In addition to being the lead researcher on several international air quality studies, Smithgall Chair holder and Regents Professor of Earth and Atmospheric Sciences Bill Chameides also confesses that he enjoys making his students laugh. Vice Provost for Undergraduate Studies Bob McMath keeps his hand in the classroom as well, teaching southern history in the Ivan Allen College.

(SLIDE: INITIATIVE #2)

These examples lead to one of my personal goals – that every endowed chair holder, every Regents professor will be directly engaged in the undergraduate experience in some way. This goal extends further to all academic faculty in one way or another. I am going to work with our provost, the deans and chairs, and our faculty to find more effective ways to factor undergraduate teaching and learning experiences into our workload calculations and our performance evaluations.

One of the key components of our teaching occurs in the core curriculum where faculty from different schools and colleges are asked to teach subjects as specialists in a sequence whose sum is expected to add up to a whole. The core affects all students and is critically important. To allow us see our efforts from a broader view, I am going to create an oversight committee composed of faculty and academic administrators to regularly report on the instruction and the outcomes obtained in our core curriculum.

(SLIDE: Initiative #3)

The third part of this initiative takes a closer look at teaching assistants. This was one element of the report by the SGA's Joint Commission on Enhancing Undergraduate Learning which highlighted the need to better prepare our teaching assistants for their important role. We want graduate students and undergraduate leaders to become

mentors and advisors who enrich the process of undergraduate learning. It is my goal to budget for an additional 10 graduate teaching assistants and 10 undergraduate teaching assistants each year for the next three years, adding a total of 30 in each category. To procure one of these positions, schools and colleges would submit proposals outlining how the teaching assistant would be used to enhance undergraduate education in the classroom or lab.

(SLIDE: CETL TRAINING)

The Center for the Enhancement of Teaching and Learning, which we call CETL, has already developed outstanding teaching fellows programs for faculty and teaching assistants, which were recognized last year with the Hesburgh Award. I will provide additional resources to CETL so they can partner with our schools and colleges in preparing young faculty and especially teaching assistants for their roles.

(SLIDE: Initiative #4)

I also want to encourage and support innovative teaching and undergraduate education by documenting and sharing best practices. The College of Engineering recently created a Task Force for the Enhancement of Undergraduate Education to undertake a complete evaluation of the experience it offers students and make recommendations for the creation of a more student-focused learning environment. Efforts like this to identify the pieces and put them together are important.

(SLIDE: GRIFFITH)

And there are other good examples across campus to be shared. The School of Literature, Communication and Culture in the Ivan Allen College recognized that small classes and detailed feedback are essential to the process of helping freshmen learn to write, and came up with an innovative solution to reduce class size. The Marion L. Brittain Teaching Fellows are post-doctoral students who come to Georgia Tech from around the nation for the unique experience of teaching literature and composition in a technologically sophisticated learning environment.

The College of Sciences has designated Directors of Teaching Effectiveness to help its faculty with the quality of their course content and provide a process of peer review in the classroom. Even senior faculty are finding value in this fair and open evaluation of their teaching efforts and opportunity to gain insight into their classroom performance.

(SLIDE: TUTORING)

And for those of you who worry that tinkering with the undergraduate learning environment might dilute Georgia Tech's traditional rigor, I want to point out that we understand that excellence is never achieved by lowering standards. Our goal is the

same as a good track coach – to provide the support and coaching our students need to continue to clear the bar even as we continue to raise it. Taken together the components of the initiative I have described should allow us to take a large step toward creating a more positive and exciting environment for undergraduate teaching and learning. Our provost and Dr. McMath will lead the effort and I look forward to working with them to see to its success.

(SLIDE: DIVERSITY)

Another related area where we hope to improve our life together on this campus and to make needed progress is by creating a campus where diversity is valued and welcomed for all of its potential benefits.

(SLIDE: QUOTE)

In a global environment that thrives on innovation, diversity is a competitive advantage, because it provides a broader, richer more fertile environment for creative thinking and problem solving. As a result, competition is stiff for high-quality, diverse talent, whether students, faculty or staff.

(SLIDE: STUDENT %)

We have made significant progress in diversifying our faculty and student body at Georgia Tech since the days when both were exclusively white males. But the percentage of our students who are women has remained relatively static. And while we rank first or second in the nation in graduating African American engineers, the hard numbers it takes to achieve that distinction are pretty small, and we need to do better there as well.

(SLIDE: 2 FACULTY)

Diversity among our faculty is as important as among our students, and the story is pretty much the same. We have made progress; we are national leaders in some areas. But we are still not where we need to be, and we must become more creative in our recruitment and retention efforts.

(SLIDE: WRC, OMED)

We need to be creative and flexible in recruiting minorities and women, both as students and faculty. But one of the best ways to attract talent is to create a campus environment where everyone feels welcome and at home. If we become known as a place that values diversity in our daily life as a community, then recruiting will become an easier task.

(SLIDE: STUDENTS)

We also have to understand that while we often cite our success stories, diversity remains highly uneven at Tech, as was pointed out in our recent Federal Diversity Audit. To help us broaden our efforts we are developing an Institute-wide approach. First, we have created the Institute Diversity Management Group made of Tech's highest-ranking officials, which I will chair. Operating under the umbrella will be two organizations that will help us value and attract diversity.

(SLIDE: PEARL A)

The Council on Diversity, chaired by Pearl Alexander, will help us to measure our efforts toward diversity. The Council will help us improve our recruiting process and share best practices in diversity management among the many units that make up this campus.

The Diversity Forum, chaired jointly by a student who is in the process of being named, and Charles Brown of GTRI, will provide opportunities for the campus community to engage in open, respectful discussion of issues surrounding diversity. This group is especially effective in helping us appreciate that diversity is more than a count of different types of people on campus, but rather also relates to a willingness to understand and appreciate differences in opinions and ideas. A Diversity Town Hall meeting is scheduled for November 15, and I encourage you all to participate. The discussion will address the Georgia state flag controversy.

(SLIDE: RESEARCH)

Anyone who aspires to define the technological university of the 21st century must be on the leading edge, and this includes not just creating new ideas but also moving them from the laboratory to a place where they can be used by society. The institutions that do technology transfer well and support faculty efforts to move in this direction, contribute to society in ways that improve economic conditions for all.

(SLIDE: DICKERSON)

But taking innovations to market is a challenge. So we celebrate the success stories. Dr. Steve Dickerson's company DVT not only serves as an inspiration for the next generation of faculty, but has given back to Georgia Tech by hiring students and contributing \$1 million to the Campaign. Our goal is to follow his lead, and define a clearer pathway from discovery to commercialization for our faculty and research labs.

(SLIDE: FACULTY START-UPS)

We already have the advantage of the Advanced Technology Development Center, which was the nation's first university-based incubator when it was created 20 years

ago and is now regarded as the nation's best. It provides a helping hand to guide faculty through the process of organizing a company and hardening their idea or discovery into a reliable, marketable product.

(SLIDE: EmTech Bio)

ATDC's newest project is the incubator at EmTech Bio, a commercial research and development center for biotechnology operated jointly by Georgia Tech and Emory University. Its mission is to spark development of a high-tech biotechnology industry and build strength in this sector for Atlanta's and Georgia's economy.

(SLIDE: BARNES QUOTE)

It is a long way from making andirons in the Georgia Tech shops of 1888 and selling them to retail customers, to creating a start-up company to market the smart T-shirt, and the journey reflects our growth as an institution. Clearly the pace is a whole lot faster, and the business a whole lot more sophisticated. So in a recent study we visited five campuses where this is done well, and used the information to develop a roadmap to define clearer, more structured policies and pathways for faculty to take their innovations to market. In the coming year we will be implementing this plan.

(SLIDE: STRATEGIC CMU)

Another important component in our plan for the future is to become more strategic and effective in our communications. We have the challenge of explaining our traditions while stating the case for our new role in society. The job for Georgia Tech is not only about getting students and dollars in the door. In the rarified and highly competitive environment of the nation's top ten public universities, the daily struggle is to differentiate our institution from the other nine – to create for Georgia Tech a unique brand identity.

Our communications presently resemble the pieces of an unassembled jigsaw puzzle – colorful, interesting and informative, but they don't fit together to make the big picture or establish a branding strategy.

(SLIDE: PUBLICATIONS)

If we are to be known for defining the technological university of the 21st century, then others must recognize our identity and associate it with the full scope of our endeavors as an Institute.

We are now moving to the next step in our communications strategy, creating stronger, broader core messages for the Institute as a whole. We began by producing our first ever annual report to support the new relationships we are cultivating with foundations

and high-level corporate officials. During the coming year we will continue this process by restructuring and strengthening our web presence, and by forming a strategic communications team to focus on creating core messages for the Institute and increasing the coordination of our communications efforts. We will look for ways to hear from you about how we are doing.

(SLIDE: QUOTE)

And that, ladies and gentlemen, concludes my year 2000 State of the Institute Address. I know we all share in the pride not only in the many individual achievements we have accomplished, but also the way those achievements come together to place this Institute in a position that will help us define the technological university of the future. This is a goal worthy of an institution with our vision and aspirations. We have hard work ahead of us to achieve it, but with your help we can succeed.